

Reconsidering the Minimum Voting Age in the United States

Benjamin Oosterhoff¹, Laura Wray-Lake², & Daneil Hart³

¹ Montana State University

² University of California, Los Angeles

³ Rutgers University

Several US states have proposed bills to lower the minimum local and national voting age to 16 years. Legislators and the public often reference political philosophy, attitudes about the capabilities of teenagers, or past precedent as evidence to support or oppose changing the voting age. Dissenters to changing the voting age are primarily concerned with whether 16 and 17-year-olds have sufficient political maturity to vote, including adequate political knowledge, cognitive capacity, independence, interest, and life experience. We review past research that suggests 16 and 17-year-olds possess the political maturity to vote. Concerns about youths' ability to vote are generally not supported by developmental science, suggesting that negative stereotypes about teenagers may be a large barrier to changing the voting age.

Keywords: voting, adolescence, rights and responsibility, politics

Voting represents both a right and responsibility within democratic political systems. At its simplest level, voting is an expression of a preference (Achen & Bartels, 2017) intended to advance the interests of oneself or others. Voting is also a way that one of the core qualities of citizenship—participation in the rule-making of a society—is exercised. Both of these perspectives on voting emphasize the need for voters to possess certain qualities. For a vote to be cast rationally, people must be aware of their preferences and capable of identifying the option that best reflects these preferences. Voters are also expected to be citizens within a community and have some concern about the welfare of their society as participants (Brennan, 2016). The requisite qualities assumed necessary for voting include awareness, rational decision-making, membership and identity, and knowledge of what benefits fellow citizens. As there are no established or agreed upon ways to assess each potential voter for these abilities, age is generally accepted as a marker for the capacity to vote (Nelkin, 2020).

Deciding who has the requisite characteristics and consequent right to vote has been contentious throughout his-

tory and rooted in prejudiced views of particular groups' capabilities. Non-white citizens were not granted the right to vote until the 1870s, and after being legally enfranchised, literacy tests were designed to prevent people of color from voting (Anderson, 2018). The year 2020 marks the 100th anniversary of women's suffrage and the 50th anniversary of the Voting Rights Act of 1970, which changed the minimum voting age from 21 to 18 years. More recently, scholars and policy makers have considered whether the minimum voting age should be changed to 16 years of age (e.g., Hart & Atkins, 2011; Wray-Lake et al., 2020). Similar to other social movements seeking to expand voting rights, advocates for changing the voting age highlight the social benefits of increasing political representation and encouraging civic engagement (Wray-Lake et al., 2020).

Expanding voting rights to 16 and 17-year-olds has both national and international precedent. Currently, the minimum voting age is 16 for national elections in 10 countries including Argentina, Austria, Brazil, Cuba, Ecuador, Malta, Nicaragua, the Isle of Man, Jersey, and Guernsey. Additionally, the minimum voting age is 17 in six countries—East Timor, Greece, Indonesia, North Korea, South Sudan, and Sudan. In most of these countries, the shift to a lower voting age is relatively recent and occurred within the past two decades. In the United States, the issue of lowering the voting age has been discussed in the US Congress and endorsed by presidential candidates. A few small US municipalities have expanded the voting age for local elections to include 16 and 17-year-olds, including Tacoma Park and Greenbelt, Maryland. In some cities including Berkeley and Oakland,

This is a pre-print of a manuscript to appear in *Perspectives on Psychological Science*.

Correspondence concerning this article should be addressed to Benjamin Oosterhoff, Department of Psychology, Montana State University, 305 Traphagen Hall, Bozeman, MT 59717. E-mail: benjamin.oosterhoff@montana.edu

California, 16 and 17-year olds have gained the right to vote for school board elections. Despite the enthusiasm of many politicians and scholars for changing the US voting age to 16-years-old, some US congressional leaders believe that a key reason why past efforts to change the minimum voting age have failed is the lack of public awareness or support for these measures despite clear possible advantages (Wray-Lake et al., 2020). The nature of public perception concerning the qualities necessary to vote and whether teenagers possess these capabilities represents an important focal point for policymakers interested in changing the voting age.

Developmental science may be strategically positioned to inform whether youth possess the capacity to vote. Adolescence is a period characterized by substantial physical, neurological, and cognitive changes that are accompanied by societal recognition of a variety of privileges and rights (Sherrod & Lauckhardt, 2009). In many US states, 16-year-olds have licenses to drive, rights to work for pay, and adult status in criminal proceedings, while 18-year-olds can form legal contracts and have freedoms to marry and enlist in the military. The specific age for each of these benefits and liabilities varies across states and over historical time. Developmental science has a rich history of research and theory documenting age-related changes in the social and cognitive capabilities of teenagers that has been used to inform policy regarding the age that young people should receive certain rights and responsibilities. For instance, researchers have used developmental science to inform discussions about the appropriate age during adolescence for driver license eligibility, independent reproductive decisions, and adult status for criminal prosecutions by aligning research and theory with the nature and demands of these decision-making contexts (Steinberg et al., 2009; Steinberg & Icenogle, 2019). A review of developmental research can similarly inform whether concerns about expanding the voting age are justified.

In this article, we examine common reasons why people believe 16 and 17-year-olds should not be enfranchised and review these judgments in light of findings from developmental psychology and political science. Our central premise is that developmental science can contribute to public policy conversations about the minimum age to vote. Little research has examined beliefs about changing the voting age to 16 years. However, research on public opinion regarding changing the minimum voting age from 21 to 18 years indicates that most adults opposed lowering the voting age based on thinking young people possessed insufficient political knowledge, independence, cognitive capacity, interest, and life experience (Carleton, 2010). Similar concerns surfaced in adults' beliefs about changing the voting age in California (Wray-Lake et al., 2020). Thus, we focus our conceptual analysis on concerns about whether 16 and 17-year-olds have sufficient political knowledge, independence, cognitive

capacity, interest, and life experience, and we evaluate these concerns in light of empirical evidence.

Do 16 and 17-Year-Olds Have the Political Knowledge to Vote?

A common justification against changing the voting age concerns beliefs that youth do not have enough political knowledge or awareness to vote. However, empirical evidence comparing the political knowledge of 16 and 17-year-olds to adults is mixed. Hart and Atkins (2011) analyzed data from the National Household Education Survey of 1996 which assessed political knowledge in a nationally representative sample of American households and found that 16- and 17-year-olds scored equivalent to young adults (ages 18-21), although both age groups lagged behind middle-aged adults. Hart and Youniss (2017) reanalyzed data from the Civic and Political Health Survey of 2006, which had a representative sample of young people between ages 15 and 25 years. They found little evidence that 16- and 17-year-olds were different in political knowledge from other young adults. Much of the same pattern is found in studies of youth in other countries. Austrian 16 and 17-year-olds have similar levels of political knowledge as those 18 years and older (Wagner et al., 2012). Mahéo and Bélanger found in a sample of Quebec youth that 16- and 17-year-olds were as politically knowledgeable as older teenagers. In contrast with this research, Chan and Clayton (2006) found that British youth had lower political knowledge than British adults, but their data had some anomalies such as showing a sharp decline in knowledge between ages 10 and 20 years.

Many have bemoaned low rates of political knowledge among US youth as well as adults (Rozansky, 2016), and other research has shown that although adults appear to understand basic facts about politics and the economy, they struggle with specific pieces of political knowledge (Rosentiel, 2010). For example, a 2018 survey indicated that only 1 in 3 American adults would pass the US citizenship test, which assesses factual knowledge of American history and government (Riccards, 2018). Similarly, most past research evaluating age differences in political knowledge has utilized nationally representative data with political knowledge operationalized as "propositional" knowledge. This operationalization prioritizes factual aspects of the political system, such as the number of senators representing a state or number of parliament members. Yet, preparing for civic life requires much more than just facts about government and history (Campbell & Niemi, 2016), and measures of factual political knowledge have been criticized as not relevant for quality of political participation (Chan & Clayton, 2006). Adults with low propositional political knowledge (termed "political sophistication") have similar coherence in their political attitudes and change their political opinions for predominantly

the same reasons as those high in political knowledge (Enns & Kellstedt, 2008; Goren, 2004). Further, political knowledge does not appear to alter how personal values are connected with policy preferences (Goren, 2004). Although traditional political knowledge can be useful from a practical standpoint, voting requires having interests and knowledge about how candidates might represent those interests (Chaffee et al., 1994), and propositional political knowledge likely does not inform one's candidate choices.

Rather, well-informed citizens should have practical skills to obtain and interpret correct and relevant information from the government and other sources. With the proliferation of technology, accessing factual information about the political process may be easier, yet new skills are needed to determine whether specific information is credible or trustworthy. There is some evidence that young adults engage in greater political information processing relative to middle-aged and older adults. In a series of experiments, middle-aged and older adults engaged in less information search, had less accurate memory of political information, and had a lower probability of making a "correct vote" in which the participants' own political position aligned with objective measures of a given candidate's political position compared to young adults (Lau & Redlawsk, 2008). The authors propose that middle-aged and older adults may sometimes demonstrate higher propositional political knowledge because they have more experience within the political system and are more likely to have memories of political actors and events compared to young people (Lau & Redlawsk, 2008). Yet, young people may be more likely to critically process information used to make informed political decisions. These trends have been further demonstrated when examining age differences in sharing objectively false political information on social media, with young adults (18 to 29 years) being seven times less likely to share fake news relative to older adults (60 years or older; Guess et al., 2019). Although the Guess et al. and Lau et al. studies did not examine 16 and 17-year-olds, these findings suggest that youth may have advantages over older adults in developing contemporary forms of political skills to navigate the advanced technological landscape.

Taken together, evidence is mixed regarding age differences in political knowledge. US voting-age adults vary widely in their political knowledge, with many adults scoring low on propositional political knowledge and performing poorly on when seeking and evaluating credible political information. If political knowledge were considered a key marker of voting capacity, these findings call into question whether many voting-aged adults would qualify to cast a ballot and today's young people appear to possess unique skills that make them better suited to align their political decisions with credible information. However, there are different perspectives on what constitutes valid sources of politi-

cal knowledge for voting, and it is worth questioning whether political knowledge forms the true basis for voting decisions. New approaches to civic education have begun moving away from propositional knowledge-based curriculum and instead emphasize the importance for youth to understand and address community problems (Ballard et al., 2019). These "action civics" approaches will continue to promote the skills necessary for youth to make high quality voting decisions.

Do 16 and 17-Year-Olds Have the Cognitive Capacity to Vote?

A second common concern against changing the voting age relates to perceptions that youth do not have the cognitive capabilities to vote. These beliefs may manifest in broad perspectives that youth have underdeveloped cognitive functioning compared to adults or that youth are too impulsive, too emotional, or too irrational to vote. Concerns about how cognitive capabilities are balanced with the rights and responsibilities given to adolescents have been consistently raised in multiple areas of developmental research and policy (Steinberg et al., 2009). For example, although the public has perceived contradictions in policy positions that 16-year-olds are too developmentally immature to be eligible for the death penalty but developmentally mature enough to seek an abortion without parental involvement, developmental scientists have clarified this apparent contradiction (Steinberg et al., 2009). Empirical data show that adolescents demonstrate adult-like levels of cognitive capacities including working memory, verbal fluency, planning, and logical reasoning by age 16, and thus are capable of mature reasoning and decision-making (Steinberg & Icenogle, 2019). Yet, socioemotional maturity (e.g., risk perception, sensation seeking, impulsivity, resistance to peer influence, future orientation) demonstrates consistent, linear age-related increases into the late 20s and early 30s, which explains why adolescents are prone to risk when engaging in spontaneous decisions in the contexts of peer influence (Steinberg et al., 2009).

Asymmetries in the development of cognitive capacity and socioemotional changes highlight the critical importance of placing questions about the maturity of adolescents into a broader context that considers how youths' capabilities align with the demands of a given right or responsibility. Indeed, Steinberg and Icenogle (2019) argue that the US has long been comfortable with using different age boundaries for different purposes, and developmental science can be used to inform policy decisions about which age boundaries are appropriate for different issue areas. If adolescents have adult-like cognitive capacity and underdeveloped socioemotional functioning, 16 and 17-year-olds may perform similar to adults in decision-making contexts that allow for unhurried logical

reflection versus those that prompt hurried impulsive decisions (Steinberg & Icenogle, 2019). Voting likely falls into the former category, as political campaigns typically run for several months prior to Election Day and casting a ballot is not timed. The act of voting takes commitment to follow through on multiple steps that unfold over a period of time, including registering to vote, knowing where to vote, getting to the voting location at the correct day and time, and for many, waiting in long lines to vote. Additionally, adolescents tend to make more impulsive decisions with peers, yet voting is a solitary act. Thus, voting very likely does not pull for decisions made based on sensation seeking or impulsivity. Overall, public concern over whether youth have the cognitive capacity to vote is unsupported by research. Youth have the cognitive capacity to make informed decisions, especially when provided with a context that allows for unhurried, logical deliberation. The voting process is intentionally designed to provide citizens with the ability to make thoughtful, deliberate, and independent decisions and thus represents a context where 16 and 17-year-olds can exercise their adult-like capacities.

Do 16 and 17-Year-Olds Have the Independence to Vote?

A third common concern about changing the voting age includes perceptions that 16 and 17-year-olds do not have the independence to vote. It is possible that youths' vote will be unduly influenced by parents, teachers, peers, or celebrities. Concerns about undue influence are not unique to adolescents and have been repetitively raised by political scientists and lawmakers who seek to provide fair and equitable elections for adults that are free from influence by corporations or political campaigns. Indeed, the ways that Russian entities may have influenced US adults through fake news and social media accounts underscores the real concerns that Americans of any age can be influenced in their political views (Shane, 2017).

Voting is strategically and deliberately designed to occur in a context that mitigates immediate undue influence. Voting in all but three US states (Colorado, Oregon, and Washington) traditionally utilizes an in-person secret ballot system which is designed to thwart attempts to be influenced by intimidation, blackmailing, and potential vote buying as well as provide voters with the necessary time and privacy to make personal, informed decisions. Official ballots are printed at public expense, contain the names of all nominated candidates and proposals, and are often only distributed at the polling place or in systematic ways by mail. Further, according to US Code 594, intimidation, threats, and coercion of any other person for the purpose of interfering with the right of that other person to vote as they may choose is explicitly illegal under federal law. In fact, every state has some kind of law regulating electioneering (campaigning or persuading

voters) at voting sites (see nass.org). We have national hotlines that citizens can call to report violations of voter rights, and the Department of Justice has an election complaint form where abnormalities can be reported. Thus, the US goes to great lengths to ensure that voters are not inappropriately influenced during the voting process.

Evidence suggests that teenagers are more open to social influence than adults as a result of greater neurological sensitivity to social rewards (van Hoom et al., 2019). Ideological similarity is greater between adolescents and their parents than between young adults and their parents (Hufer et al., 2019), although research indicates that teenagers vary widely in how accurately they perceive their parents' political views and whether or not they choose to adopt them (Ojeda & Hatemi, 2015). Community effects on party identification seem most apparent among youth (Billings et al., 2020) and historical models suggest that adolescence and early adulthood are sensitive periods for the development of partisan identities (Bartels & Jackman, 2014). Across all of these studies, it is important to note that no evidence suggests adolescents' susceptibility to social influence in the political domain is inappropriate. For example, if young people are more sensitive to contemporary events in forming ideological attachments as Bartels and Jackman suggest, perhaps this tendency reflects openness rather than susceptibility.

Very little empirical evidence has directly examined the extent to which parents, teachers, peers, or celebrities influence adolescents' actual votes. A large literature on social networks and voting indicates that peers motivate voting and political engagement for adults across ages (Ryan, 2011). Youth and adults have similar political views as their friends (Poteat et al., 2011), and youth evaluate and select potential friendships based on similarities in attitudes and values (Veenstra & Dijkstra, 2011). Thus, potential similarities in youths' political attitudes, values, and behaviors with parents and peers would likely not represent undue influence, but rather a product of normative, dynamic developmental processes. A pertinent question is whether changing the voting age would simply produce redundancies in the voting system. A recent study used voting record data to examine whether within-family homogeneity in voting registration increased in Takoma Park, Maryland after lowering the voting age in local elections to 16-years (Hart et al., 2020). Increases in within-family homogeneity in voter registration would suggest that lowering the voting age may amplify the voting preferences of their parents. This research did not find evidence of a change in within-family homogeneity for voting registration after lowering the voting age in Takoma Park, suggesting that if undue parental-influence exists, it does not amount to a measureable shift in population-level voting registration.

In summary, current available evidence on the question

of whether external forces unduly influence youth voting is not sufficient or convincing enough to deny 16 and 17-year-olds the right to have a say in issues that affect them (Nelkin, 2020). A more direct test of parent, teacher, or peer influence would involve comparing youths' and adults' voting behavior when each group is given direct instructions to vote against their prior inclination. To our knowledge, this evidence does not yet exist and such efforts would provide valuable information about outside influences on voting choices for both youth and adults.

Do 16 and 17-Year-Olds Have the Political Interest to Vote?

A fourth common justification against lowering the voting age pertains to whether youth have sufficient political interest to vote. Youth are often viewed as being politically apathetic and lacking intent to vote even if given the right. However, little empirical evidence suggests that youth are apathetic towards politics. In the US, research found that 16- and 17-year-olds had similar levels of political interest as 18 to 20-year-olds (Hart & Atkins, 2011). Further, intending to vote is common among US youth, with approximately 84% of 17 and 18-year-olds indicating that they intend to vote in the future (Oosterhoff et al., 2018). Research on Austrian youth indicated that 16 and 17-year-olds had similar levels of political interest and political participation as older participants (Wagner et al., 2012) and that voting turnout was higher among 16 and 17-year-old first-time voters relative to 18 to 20-year-old first-time voters (Zeglovits & Aichholzer, 2014). Research from sociology further highlights that youth have been at the forefront of many major social movements in the US and globally (Costanza-Chock, 2012). Recent examples include youth movements advocating for stricter gun control in response to school shootings (Shear, 2018), urgent actions to prevent climate change (Sengupa, 2019), and policy change to defund police in response to violence against Black lives (Anyiwo et al., 2020). This research stands in contrast with one study with British youth that indicates 16 and 17-year-olds have less political interest compared to adults (Chan & Clayton, 2006).

Although existing evidence suggests that 16 and 17-year-olds have similar levels of interest in politics as adults, it is useful to consider why some youth may be less interested in politics. Political involvement in the US is an activity traditionally viewed as being reserved for adults and youth are often formally or informally excluded from participating in many types of political action including voting. While many social issues and policies are certainly relevant for youth, political engagement itself may be perceived as unavailable for many. Research on the development of political interest suggests that sustained interest is cultivated through autonomous

action—that is, political involvement allows people to explore politics and social issues in further detail, thus cultivating a sense of political interest (Amnå et al., 2009; Statin et al., 2017). Legal and social restrictions that limit the ability of 16 and 17-year-olds to vote may prevent individuals from becoming interested in politics because they are unable to autonomously participate. Classrooms that allow youth to cast “mock votes” have teens with higher intentions to vote in the future (Meirick & Wackman, 2004), and passing legislation that expands the voting age increased political interest among 16 and 17-year-olds in Austria (Zeglovits & Zandonella, 2013). Overall, there is little evidence to suggest that youth are politically apathetic. Quantitative data suggests that 16 and 17-year-olds generally have similar levels of political interests as young adults, and there are several instances of young people leading social movements around the world. Not only is there little direct evidence demonstrating political apathy among youth, changing the voting age may directly increase political interest among young people.

Do 16 and 17-Year-Olds Have the Life Experience to Vote?

A fifth concern about changing the voting age relates to perceptions that youth do not have enough life experience to vote. Concerns about whether young people have adequate life experience to vote were prominent in arguments against changing the voting age from 21 to 18 years (Carleton, 2010). Those who support this view state that a certain amount of life experience is required to gain the historical perspectives necessary to adequately inform personal positions on social issues (Carleton, 2010). This argument is difficult to evaluate using the scientific method because it assumes that life experience is quantifiable, comparable, and increases with age. Substantial inter-individual heterogeneity in life experiences calls into question which life experiences are necessary to meaningfully participate in politics and whether these experiences correspond with older age. Further, Carleton's (2010) argument proposes that life experience provides a qualitatively different historical perspective relevant for politics that is unable to be achieved by education. It is unlikely that the historical perspective obtained from life experience that is relevant for political action differs in a meaningful way from historical perspective gained from discussions with parents and teachers, reading books, or taking courses, all of which are means to transmit historical knowledge (e.g., McIntosh et al., 2007).

It is possible that understanding political concepts on a cognitive level provides a more shallow appreciation for their implications than on a personal level. For example, young people may understand the concept of taxes but not realize the personal implications until they pay them (although employed 16 and 17-year-olds do have the experience of paying

taxes). However, today's adolescents also live through experiences that most adults never have, such as mass school shootings or school shut-downs due to a virus threat. These realities may be just as powerful at shaping an understanding of government leadership and policy as any other life experiences. Treating age as synonymous with life experience is a deficit-based idea that neglects important period and cohort differences between young people and adults. Deficit-based perspectives and the lack of sensitivity to period and cohort differences are inconsistent with contemporary understanding of adolescent development. Ultimately, the assumptions that accompany insufficient life-experience arguments against changing the voting age are value-based and do not lend itself to empirical investigation. Rather, the individuals deciding whether 16 and 17-year-olds have sufficient life experience to participate in politics may draw on their own personal beliefs when judging the quality and quantity of life experiences necessary for political engagement. Similar value-based arguments were raised by opponents to the women's suffrage movement and were rooted in sexism (Dodge, 1914). Likewise, devaluing adolescents' lived experiences as irrelevant for voting may reflect ageism toward young people. Because no particular life experiences can be identified as necessary to have prior to voting, the idea that adolescents have insufficient life experience to vote is a baseless claim.

Additional Challenges and Considerations when Reconsidering the Voting Age

Reconsidering the voting age requires additional considerations that can be informed by developmental evidence and theory. Like most social movements, changing the voting age at a national level will likely be an elongated process. The earliest recorded political support for changing the minimum voting age from 21 to 18 was in 1941 by Senator Harley Kilgore, which was 30 years before 18-to-20-year-olds were effectively granted the right to vote. Currently, US congress representatives that have attempted to change the minimum voting age to 16 state that the biggest barrier to change concerns public perception of the skills and abilities of teenagers (Wray-Lake et al., 2020). Changing these perceptions can present an important challenge. There will certainly be instances where some adolescents do not possess the political maturity of adults and it may be tempting to draw on this information when evaluating whether all 16 and 17-year-olds are prepared to vote. However, a core tenant of developmental theory is the presence of individual differences in skills, abilities, and growth. These differences are not isolated to teenagers but also apply to adults and are likely not due to developmental immaturity but rather heterogeneity across people (Baltes et al., 1980). There are documented of instances of adults with low political interest (e.g., approximately one

in three eligible voters do not vote in national elections; Desilver, 2018), with low political knowledge (Enns & Kellstedt, 2008), who make incorrect voting decisions based on objective information (Lau & Redlawsk, 2008), who are persuaded by uncredible news sources and endorse conspiracy theories (Wood et al., 2012), and who have varying degrees and types of life experiences. It will be important to consider this heterogeneity to ensure young people are not being held to a higher standard than adults when evaluating whether they possess the developmental qualities necessary to vote.

There is also strong reason to suspect that support or opposition to changing the voting age will vary based on ideology and other individual differences. Conservative news sources have argued that lowering the voting age is a political strategy to elect Democratic presidents, as young adults tend to be more liberal and disproportionately favor Democratic nominees relative to older adults (Hannity, 2019). Although some evidence suggests conservatism increases with age (e.g., Cornelis et al., 2009), these studies often conflate age with cohort and period effects, including which administration is in office and other prominent national events (e.g., 9/11) that happened when young people are forming their political identities (Desilver, 2014). Cohort data from yearly nationally-representative samples of high school seniors between 1976-2015 indicate that the likelihood of 12th graders being predominantly Republican or Democrat has drastically changed over the past 40 years (Twenge et al., 2016). Youths' political leanings have varied throughout history and currently, American 18-year-olds are more moderate than liberal or conservative. Regardless of these trends, a key principle of democracy is the inclusion of different perspectives to inform policies that are best for everyone, so arguing that 16 and 17-year-olds should be denied voting rights based on their political views not only fails to recognize the ideological diversity of young people but it is also anti-democratic. Potential ideological differences in support or opposition to changing the voting age are more consistent with a long history of ideological differences in support for expanding voting rights more generally, with liberal Democrats advocating to increase representativeness and conservative Republicans supporting higher barriers to voting (Wilson & Brewer, 2013).

As public discourse on reconsidering the voting age increases, additional concerns regarding the skills and abilities of youth—as well as the fluidity of adolescents' rights and responsibilities—may be raised. Social movements often evoke concerns regarding the “slippery slope” fallacy (Volokh, 2003): If the minimum vote age is changed to 16 years, what might stop future politicians from allowing young children to vote? The research reviewed in this article suggests that a minimum voting age of 16 years may be preferred over earlier thresholds given that several cognitive

capacities become adult-like at the age of 16 years (Steinberg et al., 2019). However, these recommendations are based on the current state of psychological science and the current socio-historical moment. Scientific discovery is an evolving process and developmental change is subject to period and cohort effects. It is possible that the developmental progressions of adolescents' skills and abilities will change in future decades and that new discoveries about youths' capacities may emerge over time. Policy regarding the minimum voting age should be updated based on the current state of development science as new knowledge is discovered, replicated, and integrated.

In addition to challenges regarding public support for reconsidering the voting age, there will also be important logistical barriers to expanding voting rights. Enfranchising an entire population at a federal level will likely require considerable resources to facilitate messaging about the policy change and to accommodate a greater volume of voters. Another way to accelerate policy change would be to start at local and state levels. The voting infrastructure of some states may be more readily adaptable to accommodate 16 and 17-year-old voters than others. For instance, voting-eligible 16 and 17-year-olds have been allowed to preregister to vote since 2016 in California. This pre-registration is key to simplifying the steps necessary for changing the voting age because County Registrars already have databases of 16- and 17-year-olds eligible and registered. Leveraging existing infrastructure and moving toward incremental change will not only expand political representation in states with pre-registration, but also provide opportunities for researchers to document the developmental and democratic benefits of changing the voting age.

Conclusions

Debates related to voting rights have been a reoccurring throughout history, with social progress favoring greater representation and inclusion. The purpose of this research was to examine common justifications against changing the voting age and to evaluate these beliefs in the context of developmental science. Past research has identified five common reasons against changing the voting age including beliefs that 16 and 17-year-olds lack sufficient political knowledge, cognitive capacity, independence, interest, and life experience to vote (Carlton, 2010; Wray-Lake et al., 2020). Similar justifications were used against expanding voting rights to marginalized groups throughout history. Dissenters to expanding voting rights to non-White men, women, and 18-20-year-olds voiced concerns about the political abilities of each group and argued that expanding voting rights would degrade democratic functioning (Carlton, 2010; Dodge, 1914). These concerns were of course prejudiced and in direct contrast with political philosophy which argues that increasing and

diversifying democratic representation improves democratic health (Engelen, 2007). Many of the arguments against expanding voting rights to 16 and 17-year olds reflect broader negative stereotypes about youth rather than assessments of their actual abilities. We recommend that future research empirically demonstrate the role of ageism in adults' views of lowering the voting age.

Scholars have advocated for the use of developmental science to inform legal and public policy concerning the rights and responsibilities of adolescents (Steinberg & Icenogle, 2019). In this article, we advocate for a voting age that is informed by developmental science. Our review indicates that many reasons against changing the voting age are generally unsupported by empirical evidence concerning adolescent development. The ability to vote is a personal democratic right and decisions to withhold the right to vote should be held to a higher evidentiary standard than decisions to grant that right. This evidence was not present in our review and to the contrary, many studies demonstrated that 16 and 17-year-olds' political competencies may be equivalent to—or exceed—that of adults. Expanding voting rights to include 16 and 17-year-olds will improve democratic representation among a developmentally capable group of people that are disproportionately affected by certain social issues.

Although not a central focus of our review, it is important to note that changing the minimum voting age to 16 years may have developmental and social advantages. Late adolescence is a transitional period marked by substantial instability. By age 18, many youth are beginning college, starting families, or seeking employment, all of which can interfere with voter turnout (Flanagan & Levine, 2010). At age 16, young people are still rooted in their communities and more likely to be surrounded by adults that can provide guidance in navigating the political system, offer historical perspectives on community issues, and encourage civic action. Granting young people the right to vote while they are still in high school may further contribute to civic equality given that college experiences systematically enhance civic inequality (Syvertsen et al., 2011; Wray-Lake & Hart, 2012). From this perspective, age 18 may represent a developmentally inappropriate time to introduce the right to vote. Changing the voting age to 16 years can connect youth to civic institutions and increase life-long political engagement.

Democratic health is not static and relies on the ability of policy makers to represent the interest of the people. This fundamental quality of democracy should make political inclusion the default and exclusion held to a higher standard of scrutiny. This review calls into question the standards used to exclude 16 and 17-year-olds from voting and further provides empirical evidence suggesting that such policies contradict contemporary research in developmental science. Congress members, social scientists, grass-roots organizers,

funding agencies, and the public should consider these issues when forming attitudes whether 16 and 17-year-olds should be given the right to vote and when making decisions regarding social policy.

References

- Achen, C. H., & Bartels, L. M. (2017). *Democracy for realists: Why elections do not produce responsive government* (Vol. 4). Princeton University Press.
- Amnå, E., Ekström, M., Kerr, M., & Stattin, H. (2009). Political socialization and human agency: The development of civic engagement from adolescence to adulthood. *Statsvetenskaplig Tidskrift*, 111, 27-40.
- Anderson, C. (2018). *One person, no vote: How voter suppression is destroying our democracy*. Bloomsbury Publishing USA.
- Anyiwo, N., Palmer, G. J., Garrett, J. M., Starck, J. G., & Hope, E. C. (2020). Racial & political resistance: An examination of the sociopolitical action of racially marginalized youth. *Current Opinion in Psychology*, 35, 86-91.
- Ballard, P. J., Suleiman, A., Hoyt, L. T., Cohen, A. K., Ayenekulu, M., & Ebuy, G. (2019). Participatory approaches to youth civic development in multicultural societies. *Youth in Superdiverse Societies: Growing up with globalization, diversity, and acculturation*.
- Baltes, P. B., Reese, H. W., & Lipsitt, L. P. (1980). Life-span developmental psychology. *Annual Review of Psychology*, 31, 65-110.
- Bartels, L. M., & Jackman, S. (2014). A generational model of political learning. *Electoral Studies*, 33, 7-18.
- Billings, S. B., Chyn, E., & Haggag, K. (2020). The long-run effects of school racial diversity on political identity. *National Bureau of Economic Research Working Paper Series*, No. 27302.
- Brennan, J. (2016). *Against democracy: New preface*. Princeton University Press.
- Campbell, D. E., & Niemi, R. G. (2016). Testing civics: State-level civic education requirements and political knowledge. *American Political Science Review*, 110, 495-511.
- Carleton, W. G. (2010). Teen voting would accelerate undesirable changes in the democratic process. In S. Engdahl (ed). *Amendment XXVI: Lowering the Voting Age* (pp. 46-55). Greenhaven Press.
- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6, 284-290.

- Chaffee, S. H., Zhao, X., & Leshner, G. (1994). Political knowledge and the campaign media of 1992. *Communication Research*, 21, 305-324.
- Chan, T. W., & Clayton, M. (2006). Should the voting age be lowered to sixteen? Normative and empirical considerations. *Political Studies*, 54, 533-558
- Cornelis, I., Van Hiel, A., Roets, A., & Kossowska, M. (2009). Age differences in conservatism: Evidence on the mediating effects of personality and cognitive style. *Journal of Personality*, 77(1), 51-88.
- Conway, L. G., III, Suedfeld, P., & Tetlock, P. E. (2001). Integrative complexity and political decisions that lead to war or peace. In D. J. Christie, R. V. Wagner, & D. Winter (Eds.), *Peace, conflict, and violence: Peace psychology for the 21st century* (pp. 66-75). Englewood Cliffs, NJ: Prentice-Hall.
- Costanza-Chock, S. (2012). *Youth and social movements: Key lessons for allies (Kinder & Braver world project: Research series)*. Berkman Center for Internet and Society at Harvard. Cambridge, MA.
- Desilver, D. (2014). The politics of American generations: How age affects attitudes and voting behavior. Retrieved from <http://www.pewresearch.org/fact-tank/2014/07/09/the-politics-of-american-generations-how-age-affects-attitudes-and-voting-behavior/>
- Desilver, D. (2018, May 21). U.S. trails most developed countries in voter turnout. Retrieved from <http://www.pewresearch.org/fact-tank/2017/05/15/u-s-voter-turnout-trails-most-developed-countries/>
- de Vries, H., Elliott, M. N., Kanouse, D. E., & Teleki, S. S. (2008). Using pooled kappa to summarize interrater agreement across many items. *Field Methods*, 20, 272-282.
- Dodge, A. M. (1914). Woman suffrage opposed to woman's rights. *The ANNALS of the American Academy of Political and Social Science*, 56, 99-104.
- Engelen, B. (2007). Why compulsory voting can enhance democracy. *Acta Politica*, 42, 23-39.
- Enns, P. K., & Kellstedt, P. M. (2008). Policy mood and political sophistication: Why everybody moves mood. *British Journal of Political Science*, 38, 433-454.
- Flanagan, C., & Levine, P. (2010). Civic engagement and the transition to adulthood. *The Future of Children*, 20, 159-179.
- Goren, P. (2004). Political sophistication and policy reasoning: A reconsideration. *American Journal of Political Science*, 48, 462-478.
- Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science Advances*, 5, eaau4586.
- Hannity, S. (2019). Pelosi's plot revealed: Nancy says lowering voting age to 16 is necessary to "Capture the Kids". Retrieved from: <https://hannity.com/media-room/pelosis-plot-revealed-nancy-says-lowering-voting-age-to-16-is-necessary-to-capture-the-kids/>.
- Hart, D., & Atkins, R. (2011). American sixteen-and seventeen-year-olds are ready to vote. *The ANNALS of the American Academy of Political and Social Science*, 633, 201-222.
- Hart, D., Atkins, R., & Allred, S. (2020). Stability and change in partisan political identification: Implications for lowering the voting age. *Journal of Applied Developmental Psychology*, 71, 101210.
- Hart, D., & Youniss, J. (2018). *Renewing Democracy in Young America*. Oxford University Press.
- Hufer, A., Kornadt, A. E., Kandler, C., & Riemann, R. (2020). Genetic and environmental variation in political orientation in adolescence and early adulthood: A Nuclear Twin Family analysis. *Journal of Personality and Social Psychology*, 118, 762-776.
- McIntosh, H., Hart, D., & Youniss, J. (2007). The influence of family political discussion on youth civic development: Which parent qualities matter?. *PS: Political Science & Politics*, 40, 495-499.
- Mahéo, V.-A., & Bélanger, É. (2020). Lowering the voting age to 16? A comparative study on the political competence and engagement of underage and adult youth. *Canadian Journal of Political Science*, 1-22. Cambridge Core.
- Meirick, P. C., & Wackman, D. B. (2004). Kids voting and political knowledge: Narrowing gaps, informing votes. *Social Science Quarterly*, 85, 1161-1177.
- Nelkin, D.K. (2020). What should the voting age be? *Journal of Practical Ethics*. Retrieved from: <http://www.jpe.ox.ac.uk/wp-content/uploads/2020/11/Online-Dana-Kay-Nelkin-V4-Oct-2020.pdf>
- Ojeda, C., & Hatemi, P. K. (2015). Accounting for the child in the transmission of party identification. *American Sociological Review*, 80, 1150-1174.
- Oosterhoff, B., Kaplow, J. B., Layne, C. M., & Pynoos, R. S. (2018). Civilization and its discontented: Links between youth victimization, beliefs about government, and political participation across seven Amer-

- ican presidencies. *American Psychologist*, 73, 230-242.
- Peto, T. (2018). Why the voting age should be lowered to 16. *Politics, Philosophy & Economics*, 17, 277-297.
- Poteat, V. P., Mereish, E. H., Liu, M. L., & Nam, J. S. (2011). Can friendships be bipartisan? The effects of political ideology on peer relationships. *Group Processes & Intergroup Relations*, 14, 819-834.
- Riccards, P. (2018). National survey finds just 1 in 3 Americans would pass citizenship test. The Woodrow Wilson National Fellowship Foundation. Retrieved from: <https://woodrow.org/news/national-survey-finds-just-1-in-3-americans-would-pass-citizenship-test/>
- Rosentiel, T. (2010). Public knows basic facts about politics, economics, but struggles with specifics. Retrieved from <https://www.pewresearch.org/2010/11/18/public-knows-basic-facts-about-politics-economics-but-struggles-with-specifics/>
- Rozansky, M. (2016). Americans' knowledge of the branches of government is declining. The Annenberg Public Policy Center of the University of Pennsylvania. Retrieved from http://cdn.annenbergpublicpolicycenter.org/wp-content/uploads/Civic_knowledge_survey_Sept_2016.pdf
- Ryan, J. B. (2011). Social networks as a shortcut to correct voting. *American Journal of Political Science*, 55, 753-766.
- Sengupa, S. (2019). Global climate strike. Retrieved from <https://www.nytimes.com/2019/09/20/climate/global-climate-strike.html>
- Shane, S. (2017). The fake Americans Russia created to influence the election. Retrieved from http://cs.brown.edu/people/jsavage/VotingProject/2017_09_07_NYT_TheFakeAmericansRussiaCreatedToInfluenceTheElection.pdf
- Sherrod, L., & Lauchardt, J. (2009). The development of citizenship. In R. M. Lerner, & Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.). Contextual influences on adolescent development, Vol. 2. (pp. 372-407). New York: Wiley & Sons.
- Shear, M. (2018). Students lead huge rallies for gun control across the US. Retrieved from <https://www.nytimes.com/2018/03/24/us/politics/students-lead-huge-rallies-for-gun-control-across-the-us.html>
- Stattin, H., Hussein, O., Özdemir, M., & Russo, S. (2017). Why do some adolescents encounter everyday events that increase their civic interest whereas others do not?. *Developmental Psychology*, 53, 306-318.
- Steinberg, L., Cauffman, E., Woolard, J., Graham, S., & Banich, M. (2009). Are adolescents less mature than adults?: Minors' access to abortion, the juvenile death penalty, and the alleged APA "flip-flop." *American Psychologist*, 64, 583-594.
- Steinberg, L., & Icenogle, G. (2019). Using developmental science to distinguish adolescents and adults under the law. *Annual Review of Developmental Psychology*, 1, 21-40.
- Syvertsen, A. K., Wray-Lake, L., Flanagan, C. A., Wayne Osgood, D., & Briddell, L. (2011). Thirty-year trends in US adolescents' civic engagement: A story of changing participation and educational differences. *Journal of Research on Adolescence*, 21, 586-594.
- Twenge, J. M., Honeycutt, N., Prislin, R., & Sherman, R. A. (2016). More polarized but more independent: political party identification and ideological self-categorization among US adults, college students, and late adolescents, 1970-2015. *Personality and Social Psychology Bulletin*, 42, 1364-1383.
- van Hoorn, J., Shablack, H., Lindquist, K. A., & Telzer, E. H. (2019). Incorporating the social context into neurocognitive models of adolescent decision-making: a neuroimaging meta-analysis. *Neuroscience & Biobehavioral Reviews*, 101, 129-142.
- Veenstra, R., & Dijkstra, J. K. (2011). Transformations in adolescent peer networks. In B. Laursen, & W. A. Collins (Eds.), *Relationship pathways: From adolescence to young adulthood* (pp. 135-154). New York: Sage.
- Volokh, E. (2003). The mechanisms of the slippery slope. *Harvard Law Review*, 4, 1026-1137.
- Wagner, M., Johann, D., & Kritzinger, S. (2012). Voting at 16: Turnout and the quality of vote choice. *Electoral Studies*, 31, 372-383.
- Wilson, D. C., & Brewer, P. R. (2013). The foundations of public opinion on voter ID laws: Political predispositions, racial resentment, and information effects. *Public Opinion Quarterly*, 77, 962-984.
- Wood, M. J., Douglas, K. M., & Sutton, R. M. (2012). Dead and alive: Beliefs in contradictory conspiracy theories. *Social Psychological and Personality Science*, 3, 767-773.
- Wray-Lake, L., & Hart, D. (2012). Growing social inequalities in youth civic engagement? Evidence from the

National Election Study. PS: Political Science & Politics, 45, 456 – 461

Wray-Lake, L., Wilf, S., & Oosterhoff, B. (2020). Reconsidering the voting age in Los Angeles and California. In D.J.B. Mitchell (Ed.), *California Policy Options 2020*. Los Angeles: UCLA School of Public Affairs.

Zeglovits, E., & Aichholzer, J. (2014). Are people more inclined to vote at 16 than at 18? Evidence for the first-time voting boost among 16-to 25-year-olds in Austria. *Journal of Elections, Public Opinion and Parties*, 24, 351-361.